Yinbin Han

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EDUCATION	**New York University**	Aug 2024 – Present
	Ph.D. Student, Finance and Risk Engineering	
	Advisors: Renyuan Xu, Meisam Razaviyayn (USC)	
	University of Southern California	Aug 2021 – Aug 2024
	Ph.D. Student, Industrial and Systems Engineering	
	Chinese University of Hong Kong, Shenzhen	Sep 2017 – Jun 2021
	B.S. Mathematics	
	University of California, Berkeley	Jan 2020 – May 2020
	Exchange Student	

INDUSTRIAL EXPERIENCE

Meta — May 2024 – Aug 2024
Research Scientist Intern

RESEARCH INTERESTS

- Applied Probability and Stochastic Modeling
- Nonconvex Optimization and Stochastic Optimization
- Data-driven Decision Making and Reinforcement Learning
- Stochastic Control and Mathematical Finance
- Diffusion Models and Schrödinger Bridge

JOURNAL PUBLICATIONS

1. Y. Han, M. Razaviyayn, and R. Xu. "Policy Gradient Converges to the Globally Optimal Policy for Nearly Linear-Quadratic Regulators." *SIAM Journal on Control and Optimization*, 2025.

   - Short version accepted by *NeurIPS Workshop Optimization for Machine Learning*, 2022.

2. Y. Han and Z. Wang. "Optimal Switching Policy for Batch Servers." *Operations Research Letters*, 2023.

CONFERENCE PUBLICATIONS

1. Y. Han, M. Razaviyayn, and R. Xu. "Stochastic Control for Fine-tuning Diffusion Models: Optimality, Regularity, and Convergence." International Conference on Machine Learning (ICML), 2025.

2. Y. Han, M. Razaviyayn, and R. Xu. "Neural network-based score estimation in diffusion models: Optimization and generalization." *International Conference on Learning Representations (ICLR)*, 2024.

   - Short version accepted by *NeurIPS workshop on Diffusion Models*, 2023.

INVITED TALKS

- INFORMS Annual Meeting, Atlanta	Oct 2025
- International Conference on Continuous Optimization, Los Angeles	Jul 2025
- International Conference on Machine Learning, Vancouver	Jul 2025
- INFORMS Applied Probability Society Conference, Atlanta	Jun 2025
- Advances in Stochastic Control and Reinforcement Learning, Banff	Apr 2025
- INFORMS Annual Meeting, Seattle	Oct 2024

• Yale Sampling Conference, New Haven	Oct 2024
• International Conference on Learning Representations, Vienna	May 2024
• INFORMS Optimization Society Conference, Houston	Mar 2024
• NeurIPS 2023 Workshop on Diffusion Models, New Orleans	Dec 2023
• INFORMS Annual Meeting, Phoenix	Oct 2023
• NeurIPS Workshop OPT2022, New Orleans	Dec 2022
• INFORMS Annual Meeting, Indianapolis	Nov 2022

ORGANIZERS

- Session co-chair at International Conference on Continuous Optimization   July 2025
- Co-organizer of the NYC Brown Bag Reading Group on Foundations of Generative AI   Sep 2024
- Session co-chair at INFORMS Optimization Society Conference   Mar 2024

REVIEWERS

- Journals: SIAM Journal on Control and Optimization, European Journal of Operational Research, Finance and Stochastics.
- Conferences: International Conference on Learning Representations (ICLR), International Conference on Machine Learning (ICML), Neural Information Processing Systems (NeurIPS), International Conference on Artificial Intelligence and Statistics (AISTATS), Conference on Uncertainty in Artificial Intelligence (UAI).

PROFESSIONAL MEMBERSHIP

- Institute for Operations Research and the Management Sciences (INFORMS)
- Applied Probability Society (APS)

TEACHING EXPERIENCE

NYU, Teaching Assistant
• FRE-GY 5020 & 5030: Bootcamp	Summer 2025
• FRE-GY 6233: Stochastic Calculus and Option Pricing	Spring 2025
• FRE-GY 9073: Stochastic Systems and Modern ML Theory	Fall 2024

USC, Teaching Assistant
• ISE 530: Optimization Methods for Analytics	Fall 2023, Spring 2024

CUHKSZ, Undergraduate Student Teaching Fellow
• MAT2002: Ordinary Differential Equations	Spring 2021
• BIO2001: General Biology	Summer 2019

AWARDS & HONORS
• Yale Sampling Conference Student Travel Grant	Oct 2024
• National Scholarship of China	2020
• Academic Performance Scholarship, CUHKSZ	2018, 2019, 2020
• Dean's List, CUHKSZ	2018, 2019, 2020

TECHNICAL SKILLS

Programming Languages:
- Proficient in Python, Numpy, Pandas, PyTorch, R, and MATLAB
- Familiar with Java, C/C++, MySQL
- Experience with Hadoop, Spark, and CUDA